

2-wire room temperature transmitter



2914

- Room temperature measurement
- Complete with sensor and transmitter
- 4...20 mA output in 2-wire connection
- Easy mounting
- Measurement range 0...70°C
- Supply 8...35 VDC



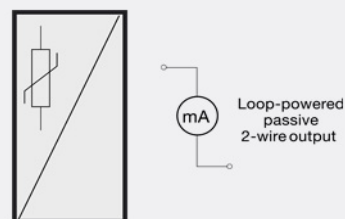
Application

- Electronic temperature measurement in for instance control rooms, offices, heating plants, factories, living rooms, and similar dry rooms.
- Suitable as a transmitter for controllers, trip amplifiers, displays, or superior SCADA systems.

Technical characteristics

- A precision Pt100 sensor with a small mass is mounted on the transmitter input thereby achieving a fast response time.
- The 2-wire output signal of 4...20 mA is proportional and linear to the temperature value that influences the built-in sensor.
- A reversed output signal of 20...4 mA may be ordered.
- A number of different sensor error detection options may be ordered.
- Protected against polarity reversal.
- The bottom of the cabinet can be attached to a wall by two screws.
- Visible or hidden cable access.

Applications



Order:

Type	Measurement range	Output	Sensor error value
2914	0...50°C : A	Special : 0	To max., ≥ 23 mA : A
	0...70°C : B	4...20 mA : 2	To min., ≤ 3.8 mA : B
	Special : X	20...4 mA : 9	Special : X

Environmental Conditions

Operating temperature.....	0°C to +70°C
Calibration temperature.....	20...28°C
Relative humidity.....	< 95% RH (non-cond.)
Protection degree.....	IP30

Mechanical specifications

Dimensions (HxWxD).....	70 x 121 x 25 mm
Weight approx.....	95 g
Wire size.....	1 x 1.5 mm ²

Common specifications**Supply**

Supply voltage.....	8.0...35 VDC
Internal power dissipation.....	25 mW...0.8 W

Response time

Response time.....	10 s (@ 0.5 m/s)
Voltage drop.....	8.0 VDC
Warm-up time.....	5 min.
Signal / noise ratio.....	Min. 60 dB
Accuracy.....	Better than 0.3°C
Signal dynamics, input.....	17 bit
Signal dynamics, output.....	16 bit
Effect of supply voltage change.....	< 0.005% of span / VDC
Temperature coefficient.....	< $\pm 0.01\%$ of span / °C
Linearity error.....	< 0.1% of span
EMC immunity influence.....	< $\pm 0.5\%$

Input specifications**Common input specifications**

Max. offset.....	50% of max. °C
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RTD input

Sensor current.....	> 0.2 mA, < 0.4 mA
Measurement range.....	0...70°C
Min. measurement range.....	25°C (span)

Output specifications**Current output**

Signal range.....	4...20 mA
Min. signal range.....	16 mA
Load (@ current output).....	$\leq (V_{\text{supply}} - 8) / 0.023 [\Omega]$
Load stability.....	$\leq 0.01\%$ of span / 100 Ω
NAMUR NE43 Upscale/Downscale.....	23 mA / 3.5 mA

Common output specifications

Updating time.....	135 ms
of span.....	= of the presently selected range

Observed authority requirements

EMC.....	2014/30/EU & UK SI 2016/1091
RoHS.....	2011/65/EU & UK SI 2012/3032
EAC.....	TR-CU 020/2011